

WHAT IS CLAIMED IS:

1. Apparatus for mooring first and second floating vessels side-by-side, the first vessel being moored to the seabed by a single point mooring system, the apparatus comprising an arm having a proximal end and a distal end, the arm being  
5 mountable on the first vessel for rotation about a vertical axis and with the distal end projecting outwardly from the first vessel in use, a substantially inelastic mooring line attached to the distal end of the arm and securable to the second vessel in use, resilient means operable to allow limited rotation of the arm about the axis in a first direction in response to tension on the mooring line which exceeds a  
10 predetermined value and to automatically restore the arm to its former position upon reduction of the tension below the predetermined value, and wherein the arm is freely rotatable about the axis in a second direction opposite to the first direction.

2. Apparatus as claimed in claim 1, wherein the resilient means comprises a piston and cylinder mountable to the first vessel adjacent the arm such  
15 that rotation of the arm in the first direction brings the arm into contact with the piston and to compress the piston into the cylinder when the tension on the mooring line exceeds the predetermined value, and wherein the cylinder is operable to extend the piston upon reduction of the tension below the predetermined value.

3. Apparatus as claimed in claim 1, wherein the resilient means  
20 comprises a stop member mountable on the first vessel such that rotation of the arm in the first direction brings the arm into contact with the stop member and a piston and cylinder mounted on the distal end of the arm between the arm and the mooring line and operable to extend when the tension on the mooring line exceeds the predetermined value, and to retract upon reduction of the tension below the  
25 predetermined value.

4. Apparatus as claimed in claim 1, wherein the arm is mountable on the first vessel at a location towards the bow.

5. Apparatus as claimed in claim 1, wherein the arm is dimensioned such that in use the separation of the first and second vessels is approximately equal to  
5 one vessel's width.

6. Apparatus as claimed in claim 1, wherein the mooring line comprises a hawser.

7. Apparatus as claimed in claim 1, for use with a second vessel having lateral thrust producing means located at its stern, the apparatus further comprising  
10 a second mooring line attachable in a stern region of the first vessel and securable to the stern region of the second vessel.

8. Apparatus as claimed in claim 4, further comprising fender means mountable on the first vessel on the same side as the arm and located approximately two thirds of the way towards the stern.

15 9. Apparatus as claimed in claim 8, further comprising loading means for transferring fluid between the first and second vessels, mountable on the first vessel between the arm and the fender means.

10. Apparatus as claimed in claim 9, wherein the loading means includes catenary hoses.

20 11. Apparatus as claimed in claim 9, wherein the loading 10 means includes rigid piping.

12. A floating vessel as claimed in claim 1, further comprising lateral thrust producing devices in the stern region of the first vessel.

13. A floating vessel as claimed in claim 2, further comprising lateral thrust producing devices in the stern region of the first vessel.

5 14. A floating vessel as claimed in claim 3, further comprising lateral thrust producing devices in the stern region of the first vessel.

15. A floating vessel as claimed in claim 4, further comprising lateral thrust producing devices in the stern region of the first vessel.

10 16. A floating vessel as claimed in claim 5, further comprising lateral thrust producing devices in the stern region of the first vessel.

17. A floating vessel as claimed in claim 6, further comprising lateral thrust producing devices in the stern region of the first vessel.

18. A floating vessel as claimed in claim 7, further comprising lateral thrust producing devices in the stern region of the first vessel.

15 19. A floating vessel as claimed in claim 8, further comprising lateral thrust producing devices in the stern region of the first vessel.

20. A floating vessel as claimed in claim 9, further comprising lateral thrust producing devices in the stern region of the first vessel.